

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 4-31618A/SCR	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/EP 01/09661	International filing date (day/month/year) 21/08/2001	(Earliest) Priority Date (day/month/year) 22/08/2000
Applicant NOVARTIS AG		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.
☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:
- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the title,

- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

- ☐ as suggested by the applicant.
- ☐ because the applicant failed to suggest a figure.
- ☐ because this figure better characterizes the invention.
- ☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP 01/09661

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N5/06 A01K67/027 A61P35/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A01K C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	STEELE J P C ET AL: "T-cell acute lymphoblastic leukemia (T-ALL): Engraftment in SCID mice." BLOOD, vol. 86, no. 10 SUPPL. 1, 1995, page 782A XP002200448 37th Annual Meeting of the American Society of Hematology; Seattle, Washington, USA; December 1-5, 1995 ISSN: 0006-4971 page 2015, paragraph 1 -page 2016, paragraph 1	1-17
Y	US 6 010 696 A (HAYNESWORTH STEPHEN E ET AL) 4 January 2000 (2000-01-04) abstract column 1, line 55 -column 3, line 30 --- -/--	1-17



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the International filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

19 June 2002

Date of mailing of the international search report

07/08/2002

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Mateo Rosell, A.M.

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	STEELE JEREMY P C ET AL: "Growth of human T-cell lineage acute leukemia in severe combined immunodeficiency (SCID) mice and non-obese diabetic SCID mice." BLOOD, vol. 90, no. 5, 1997, pages 2015-2019, XP002200449 ISSN: 0006-4971 Abstract 3114 ---	1-17
A	US 5 733 542 A (HAYNESWORTH STEPHEN E ET AL) 31 March 1998 (1998-03-31) the whole document ---	1
P,X	DIALYNAS DENO P ET AL: "Engraftment of human T-cell acute lymphoblastic leukemia in immunodeficient NOD/SCID mice which have been preconditioned by injection of human cord blood." STEM CELLS (MIAMISBURG), vol. 19, no. 5, 2001, pages 443-452, XP002200450 ISSN: 1066-5099 the whole document ---	1-17
P,X	DIALYNAS DENO P ET AL: "Preconditioning with fetal cord blood facilitates engraftment of primary childhood T-cell acute lymphoblastic leukemia in immunodeficient mice." BLOOD, vol. 97, no. 10, 15 May 2001 (2001-05-15), pages 3218-3225, XP002200451 ISSN: 0006-4971 the whole document ---	1
P,X	SHAO L ET AL: "Enhancement of human leukemia colony formation by factor(s) derived from bone marrow of NOD/scid mice reconstituted with human cord blood." BLOOD, vol. 96, no. 11 Part 1, 16 November 2000 (2000-11-16), page 767a XP001073697 42nd Annual Meeting of the American Society of Hematology; San Francisco, California, USA; December 01-05, 2000 ISSN: 0006-4971 the whole document --- -/--	1-17

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 01/09661

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	SHAO LI-EN ET AL: "Human cord blood conditioned medium enhances leukemia colony formation in vitro." LEUKEMIA RESEARCH, vol. 24, no. 12, December 2000 (2000-12), pages 1041-1048, XP002200452 ISSN: 0145-2126 the whole document -----	1-17
E	WO 01 94541 A (SESHI BEERELLI ;UNIV SOUTH FLORIDA (US)) 13 December 2001 (2001-12-13) abstract page 6, line 14-20 page 17, line 9 -page 18, line 20 -----	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 01/09661

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6010696	A	04-01-2000	US 5733542 A	31-03-1998
			US 5486359 A	23-01-1996
			US 5226914 A	13-07-1993
			US 5197985 A	30-03-1993
			AU 4704196 A	14-08-1996
			WO 9623058 A1	01-08-1996
			US 6087113 A	11-07-2000
			US 5811094 A	22-09-1998
			US 5837539 A	17-11-1998
			AU 669850 B2	27-06-1996
			AU 2252492 A	12-01-1993
			CA 2111845 A1	23-12-1992
			EP 0592521 A1	20-04-1994
			JP 7500001 T	05-01-1995
			WO 9222584 A1	23-12-1992
US 5733542	A	31-03-1998	US 5486359 A	23-01-1996
			US 5197985 A	30-03-1993
			US 5226914 A	13-07-1993
			AU 4704196 A	14-08-1996
			US 6010696 A	04-01-2000
			WO 9623058 A1	01-08-1996
			US 6087113 A	11-07-2000
			US 5811094 A	22-09-1998
			US 5837539 A	17-11-1998
			AU 669850 B2	27-06-1996
			AU 2252492 A	12-01-1993
			CA 2111845 A1	23-12-1992
			EP 0592521 A1	20-04-1994
			JP 7500001 T	05-01-1995
			WO 9222584 A1	23-12-1992
WO 0194541	A	13-12-2001	AU 6476301 A	17-12-2001
			WO 0194541 A2	13-12-2001